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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/756,440      | 01/13/2004  | Anthony J. Sutera    | 50939/10            | 2206             |

7590 05/02/2006

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| EXAMINER |
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SAN MARTIN, EDGARDO

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2837

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |                                      |  |
|------------------------------|---------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/756,440  | <b>Applicant(s)</b><br>SUTERA ET AL. |  |
|                              | <b>Examiner</b><br>Edgardo San Martin | <b>Art Unit</b><br>2837              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/12/04; 3/9/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - The current status of US patent application 10/077,324 is missing;
  - The section of the specification entitled "Summary of the Invention" is missing.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6 – 10, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mikulic (US 2,008,964).

With respect to claim 1, Mikulic teaches an air turbine apparatus, comprising a housing (Fig.1, Item 10) defining an expansion chamber, an inlet (Fig.1, Item 22) coupled to the housing, the inlet having a diameter less than the expansion chamber, an outlet (Fig.1, Item 50) coupled to the housing, a tube (Fig.1, Item 38) proximate to the inlet to directly receive incoming gases, the tube including an induction chamber extending longitudinally therethrough and aligned with the inlet and outlet, a proximal end disposed adjacent to the inlet to directly receive incoming gases, a plurality of perforations (Fig.1, Item 40) formed therein, and a distal end coupled to the outlet,

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wherein the tube defines first and second air flow paths, the first air flow path being straight and passing through the inlet, through the induction chamber, and through the outlet, the second air flow path passing through the perforations and then combining with the first air flow path (Fig.1; Col.1, Line 40 – Col.3, Line 9).

With respect to claim 9, Mikulic additionally teaches a converging portion (Fig.1, Item 36), and a body (Fig.1, Item 38), coupled to the converging portion, the body maintaining approximately the same diameter along its length (Fig.1).

With respect to claims 2, 4, 6 – 8, 10, 12, 14 and 15, Mikulic teaches the limitations as described in the claims (Figs.1 and 7; Col.1, Line 40 – Col.3, Line 9).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 5, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mikulic (US 2,008,964) in view of Burstein et al. (US 4,685,534).

Mikulic teaches the limitations discussed in a previous rejection, but fail to disclose wherein the inlet and outlet tubes include convolutions.

On the other hand, Burstein et al. teaches a muffler comprising an inlet tube aligned with an outlet tube wherein the outlet tube (Fig.3, Item 16a) includes a convolution.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Burstein et al. convolutions at the inlet and outlet of the Milkulic design because it would improve the flow of gases coming in and out of the apparatus, reducing the creation of an undesired backpressure, that would affect the flow of gases and the overall performance of the air turbine apparatus.

### ***Conclusion***

4. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

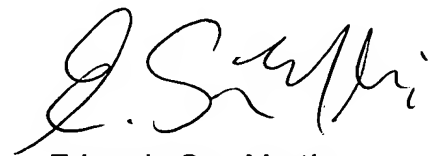
### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext.33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'E. San Martin', is positioned above the printed name and title.

Edgardo San Martin  
Primary Examiner  
Art Unit 2837  
Class 181  
April 30, 2006